

TECHNOLOGY

Introduction and Overview to the Module

The *Technology* module of the *Connecting Communities Toolkit* discusses the technical principles, policies, and procedures that should be agreed upon by all participants in an health information exchange (HIE) initiative.

The goal of implementing health information exchange (HIE) is primarily to support clinicians and patients with interoperable electronic health record (EHR) systems, computerized provider order entry (CPOE), and clinical decision support systems (CDSS) for the purpose of improving the quality, safety, and efficiency of healthcare for patients and providers. The vision of an HIE initiative in the near future is that any authorized and authenticated participant in the HIE effort can communicate with any other authorized and authenticated participant over a secure, virtual private network with complete assurance that no one but the intended recipient can read a message and no one but the identified sender could have sent it. Sufficiently robust standards are currently available today to support the migration to such an interoperable healthcare information network. However, to implement this goal for ubiquitous interoperability, all participants to the HIE must agree to adhere to certain technical standards at a level of detail not often found today in the ANSI accredited consensus standards themselves.

The *Common Principles* section provides background and describes the technology involved in HIE implementation at a high level using a simple model of message-based information transmission and describes the general technology issues that must be addressed by any HIE initiative. Then it discusses each of the technology areas and the common principles or guidelines that should be understood and used to support decisions that should be made before the technical design for an HIE initiative is established.

The *Technology* module of the *Connecting Communities Toolkit* provides:

- Common principles that address technology issues;
- A roadmap that describes the timing of the process for approaching decisions about HIE technology; and
- Comprehensive tools and resources to help organizations with technology.

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